

Guidelines for the Humane Killing of Animals for Disease Control Purposes

General comments

We recommend that the name of these guidelines be changed from Guidelines for the Humane Killing of Animals for Disease Control Purposes to “Guidelines for Humane Euthanasia of Animals for Disease Control Purposes”. Consequently, everywhere in the document the word kill occurs, it should be replaced with the appropriate form of the word euthanize.

We also recommend consistency in the use of specific words within the various sections of the OIE Animal Welfare Guidelines. For example, the word slaughter appears to be used with different definitions throughout the draft document.

Chapter 1.1.1. General Definitions

Slaughter – The proposed definition for slaughter: is any procedure which causes the death of an animal by bleeding. The proposed definition implies that animals are slaughtered only by bleeding. However, the proposed text in Article 3, “Responsibilities and competencies of the specialist team” currently states that a “Slaughterer” should be included as a member of the specialist team who has the responsibility to humanely kill animals for disease control purposes. The specific section of the Guidelines also contains several methods to humanely kill animals other than by bleeding. Additionally, the proposed text for responsibilities and competencies of a “Slaughterer” currently reads: ensure humane killing of animals through effective stunning and killing. The word bleeding is not mentioned as method to ensure humane killing of animals.

Specific Comments

Article 2 Organizational structure

Suggested proposed text:

A specialist team, led by a team leader answerable to the *official veterinarian*, should be deployed to work on each affected premises. The team should consist of personnel with the competencies to conduct all required operation; in some situations, personnel may be required to fulfill more than one function. Each team should contain a veterinarian or be under the supervision of a veterinarian.

Comment/Rationale:

There will be situations when the scope of the euthanasia requirements is beyond the ability to have a veterinarian assigned fulltime to each specialty team. Therefore, flexibility should be provided to allow a veterinarian to be responsible for and supervise multiple competent teams.

**Comments on texts resulting from the Terrestrial Animal Health Code Commission Report –
January 2005 Meeting
Submitted by the United States of America**

**Article 3
Responsibilities and competencies of the specialist team**

Suggested proposed text:

~~Slaughterers~~ Euthanizers

Responsibilities

- ensure humane killing of animals through effective stunning and killing, injecting, shooting, etc

• Competencies

- when required by regulations, licensed to use necessary equipment or licensed to be animal ~~slaughterers~~ euthanizers

Comment / Rationale :

In the use of these Guidelines only, we recommend that the title name for the individual(s) on the specialist team responsible for humanely killing animals for disease control purposes be changed to Euthanizer. We suggest that the definition for euthanizer be: “an individual who humanely causes the death of an animal for disease control purposes in a manner that is relatively painless and distress free as possible”.

Article 5

Table summarizing killing methods described in Articles 6-17*

Specific **Procedures** for killing animals and poultry contained within the “Table summarizing various killing methods” are not consistent with Article 1, General Principles, bullet 6 which reads: “When animals are killed for disease control purposes, methods used should result in immediate death or immediate loss of consciousness lasting until death; when loss of consciousness is not immediate, induction of unconsciousness should be non-aversive and should not cause anxiety, pain distress or suffering in the animals.”

For example, in the “**Table summarizing killing methods described in Articles 6 - 17**”, under the column heading - **Procedure**: “CO2 air mixture in 1) sheep and goats-neonates only, 2) pigs-neonates only, and 3) all poultry,” the current text states under the column heading: **Animal welfare concerns with inappropriate application** – slow induction of unconsciousness, aversiveness of induction. The text gives the reader the impression that slow induction of unconsciousness and aversiveness of induction occur only as a result of inappropriate application of CO2/air mixture. However the current text in Article 12, CO2/air mixture, Method 1, Disadvantages, cited below gives the reader the impression that the aversive nature of high CO2 concentrations and no immediate loss of consciousness are routine phenomena. Therefore, CO2/air mixture, Method 1, does not meet the qualification to be considered a humane method for killing animals and should be deleted from the document.

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Addition of Cervical dislocation as method for humane killing of conscious poultry for disease control purposes.

Our experts recommend that cervical dislocation of conscious poultry be included in the proposed Guidelines for the Humane Killing of Animals for Disease Control Purposes as a method requiring restraint in conscious poultry. The procedure requires personnel with proficient technical expertise. Cervical dislocation may not be practical for humane killing of 1) large numbers of poultry due to human physical limitations or 2) large or heavily muscled poultry.

Article 5

Table summarizing killing methods described in Articles 6 – 17*

Current proposed text: humane killing of pigs is broken down into two divisions - 1) neonates and 2) all others.

Suggested proposed text: Table 1: Size related Appropriateness of Various Euthanasia Methods in Swine.

Table 1: Size-related Appropriateness of Various Euthanasia Methods in Swine					
	Farrowing pig less than 3 weeks (12# or 5.5 kg)	Nursery pig less than 10 weeks (70# or 32 kg)	Grower pig (less than 150# or 68 kg)	Finisher pig (greater than 150# or 68 kg)	Mature animal, sows or boars
Carbon Dioxide (CO₂)*	yes	yes	not practical	not practical	not practical
Gunshot	no	yes	yes	yes	yes
Captive Bolt	no	yes	yes	yes	yes
Electrocution	yes	yes	yes	yes	yes
Anesthetic overdose	yes	yes	yes	yes	yes
Blunt trauma	yes	no	no	no	no
* CO ₂ means Carbon Dioxide, NOT Carbon Monoxide (CO). Carbon Monoxide is a method of euthanasia but is not currently recommended because of its high potential as a human health hazard.					

Comment/Rationale: Our experts recommend that methods of humane killing of swine for disease control purposes may be safely and more humanely applied to specific ages or weight ranges of pigs. It is inappropriate to assume that all pigs other than neonates may be treated alike. Table 1 (above) of the National Pork Board document, “On Farm Euthanasia of Swine – Options for the Producer” gives age and weight related appropriateness for various methods of humane killing of swine. The document was developed in consultation with international experts in swine animal welfare.

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Current proposed text:

The table provided for humane killing methods shows that the use of a free bullet is appropriate for all ages of pigs and that restraint for this method is not needed for all ages of pigs.

Suggested proposed text:

Delete the use of free bullet/gunshot as a method of humane killing of pigs that are less than 3 weeks of age (12 pounds or 5.5kg).

Comment/Rationale:

A free bullet/gunshot is not an appropriate method of humane killing of neonatal swine on the farm because of the difficulty in ensuring painless euthanasia and operator safety. Pigs of this size would need to be restrained. Restraining a pig of this size for free bullet euthanasia/humane killing would jeopardize the safety and well-being of the individual performing the restraint.

**Article 6
Free Bullet**

Figure 4

Suggested proposed text:

~~The optimum shooting position for pigs is just above the eyes and directing the shot down the line of the spinal chord.~~ Correct positioning for placement of the bullet/free shot is critical. The shot should be directed at the midline of the forehead 1 finger width above eye level and directing the shot down the line of the spinal cord.



Comment/Rational:

The suggested text provides the reader with a clearer explanation of how to humanely euthanize/kill pigs of all sizes, except neonates, using the free bullet or gun shot method.

Article 7

Penetrating captive bolt

Introduction

Suggested proposed text:

The captive bolt should be aimed on the skull in a position to penetrate the cortex and mid-brain of the animal. The impact of the bolt on the skull produces unconsciousness. Physical damage to the brain caused by penetration of the bolt may result in death. However, in the case of a questionable or improperly administered blow from a penetrating captive bolt, then pithing or bleeding should be performed as soon as possible after the shot to ensure the death of the animal.

Comment/Rationale:

A properly administered blow from a penetrating captive bolt may result in immediate death without the need for additional pithing or bleeding, therefore, we recommend a change in proposed text that requires the use of pithing or bleeding only when needed to ensure the death of the animal.

Article 7

Penetrating captive bolt

Conclusion

Suggested proposed text:

A suitable method for cattle, sheep, goats and pigs (except neonates), when followed by pithing or bleeding

Comment/Rationale

The words **or bleeding** are included in the Guidelines in several places such as the table in Article 5 under captive bolt use in cattle, sheep and goats; and in the text of Article 7, Penetrating captive bolt, Requirements for effective use, bullet number 7: To ensure the death of the animal, pithing or bleeding should be performed as soon as possible after stunning. The specific text **or bleeding** was probably left out of the current proposed text as an oversight.

Article 8

Captive bolt – non-penetrating

Conclusions

Suggested proposed text:

If bleeding does not present a biosecurity issue, this is a suitable method for cattle (adults only), and non – neonate sheep, goats and pigs when followed by bleeding.

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Comment /Rationale

The table in Article 5, as well as the text of Article 8 under “Requirements for effective use: indicate that in non-neonate animals bleeding should be performed as soon as possible after stunning; however, this stipulation is not included in the “Conclusions” section of the current proposed text of Article 8. We suggest that the specific wording **when followed by bleeding** be added to the current proposed text to correct an oversight in the preparation of the draft Guidelines

Article 12

CO₂ / air mixture

Method 2

Requirements for effective use in a poultry house

Bullet 3 currently reads: “Devices should be used to accurately measure the gas concentration at the highest level of birds.”

The text as proposed is confusing to the reader. Is the text referring to the area containing highest density of birds in the poultry house or is the text referring to the specific height area where birds are located in the poultry house? We recommend that the language be used to reflect the specific reference point to accurately measure the gas concentration.

Article 15

Lethal injection

Requirements for effective use

Suggested proposed text:

Bullet 3: Intravenous administration is preferred, ~~but intraperitoneal or intramuscular administration may be appropriate, especially if the agent is non-irritating. Intra-cardiac injection is only acceptable when performed on heavily sedated, anesthetized or comatose patients. Intraperitoneal administration of a nonirritating euthanasia agent is acceptable, provided the drug does not contain neuromuscular blocking agents. Intramuscular, subcutaneous, intra-thoracic, intrapulmonary, intra-hepatic, intra-renal, intra-splenic, intra-theal, and other nonvascular injections are not acceptable methods of administering injectable euthanasia agents unless they carry the label for the specific method of administration.~~

Comment/Rationale

Our experts state that intra-cardiac injection is only acceptable when performed on heavily sedated, anesthetized, or comatose animals. Intra-peritoneal administration of a nonirritating euthanasia agent is acceptable, provided the drug does not contain neuromuscular blocking agents. Intramuscular, subcutaneous, intra-thoracic, intrapulmonary, intra-hepatic, intra-renal, intra-splenic, other nonvascular injections are not acceptable methods of administering Injectable euthanasia agents.

Article 17

Killing methods in unconscious animals

Method 3 Pithing

Introduction

Current proposed text:

Pithing is a method of killing animals ~~which have been stunned by a penetrating captive bolt. Pithing results in the physical destruction of the brain and upper regions of the spinal cord, through the insertion of a rod or cane through the bolt hole. when use of a penetrating captive bolt has not resulted in immediate death.~~

Comment/Rationale:

Use of a penetrating captive bolt can result in immediate death; therefore, pithing is not always necessary.

Article 12

CO2 / air mixture

Method 1

The current proposed text states the disadvantages to CO2 /air mixture as:

Disadvantages

- The need for special equipment
- The aversive nature of high CO2 concentrations
- No immediate loss of consciousness
- The risk of suffocation due to overcrowding
- Difficulty in verifying death while the animals are in the container or apparatus

Two of the disadvantages listed under the use of CO2 / air mixture, - Method 1, a) slow induction of unconsciousness; and b) aversiveness of induction, do not comply with the proposed sixth General principle, listed under Article 1, Guidelines for the Humane Killing of Animals for Disease Control Purposes which states:

“When animals are killed for disease control purposes, methods used should result in immediate death or immediate loss of consciousness lasting until death; when loss of consciousness is not immediate, induction of unconsciousness should be non-aversive and should not cause anxiety, pain, distress or suffering to animals.”

Comment/Rationale:

Clarification is requested concerning the implementation of the sixth General principle listed in Article 1 and the use of specific methods of killing of animals for disease control purposes. Several of the methods listed as possible choices for humane killing of animals for disease control purposes do not appear to comply with the requirement “when loss of consciousness is not immediate, induction of unconsciousness should be non-aversive and should not cause anxiety, pain, distress or suffering to animals”.